

SUPPLEMENTARY INFORMATION FILE

**Damage-induced reactive oxygen species enable regenerative signalling
by the rapid repositioning of Hedgehog expressing cells.**

Romero *et al.*

Supplementary Table 1. RNA in situ probe information

gene	sequence
<i>ihhb</i>	GAATTCGAGCTCGGTACCCGGGGATCCGGGGGGTCTNAAATTNGGGGGGTC TNA AATTATCGCTAAATATAGCGACAAAGTCACTAAGTTGGCAACNCNGTTCA ACTGACATCAAATTAATTTCAATTTTTGACATTTTTAATGTGTTTTGATGTCGT TTGACATCAAGGTGACCTTTTACATCACAACCCTGAGCTTGTGATCATCTCTT TTGACAACCTCTCTCCACCAATCCCTGCGTTTTCAATCCATCATCTCTCAG TTGCCTCTAAGGCCAAAGGGTGAAGAGTTCTGAGTCTAGCAGTAGTTTTCC CAAACCTATCAGGACCTGAGAGTACCAGTGTAAAGCCATTCTTAAGGACCTGAT CTGGTCCGGTCCAGCTATACAGCAAGCGTAGAGGTGAAAAGCCCAATGAGC AAGTCTTTGCCTGTTCAACCGCAGCATAACAAGAGGTGAGCACATCGTTCACC ACTACAGTCCCATGAGCAGTAAGTGGAGGGTATAACCCCTGGTCTCCCGAA CCCCAACATGAGTGATCTGTGAAAACGCTTCCTGAGTTTACCCAGCAGCAA CACTGACCCACTTGAGCATCGCTGGCAAATATCGTCCGGACTGCTCCTGGTT TGGGTTCCCCCTGTTGGAGCAGTTTCCAACCCTCATAAACAGTAAATGAGC CGCTGTTAAAGACACGCTGGCCCCATCTCAGTGGGATCACATAGAAGTGC TTCTGGGTAATGGGGCGACGGTCCAAAAGGTGAGGACTTCACTATAGATGA GGTCTCCTGTCCCGTTCGCTTCCCTCAGAGGCCAGAACCAAGTCTCCTGCCTG CAAATCACGGATTTGTCGATGGGAACCATCCTTCATGGTCACCAGAGCCCTT CCAGGAAAACAGCCTCCTGTTTTGCTGCTACTGAATGCTCTGATTTGACT GCAGTGACGTGGCCTTTGGATTCGTAATAGACCCAGTCGAAGCCTGCTTCC ACCGCAAGACGAGCCAGCATGCGGTACTTGTTCGATCGCGGTCCGAGGTA GTAATGTCCACCGCTCTGCCCTCATAATGCAGAGATTCTTCAGAGTGTAGTCC GTCCTCATCCAGCCCTCCGTCACACGCAGACGCACACCCGGCCACAGGTT CATCACCGAGATGGCCAGAGAGTTCAGCTTATCCTTGCAGCGCTGCGTCATC ATGCGGTCCGCACCTGTGTTCTCCTCATCCTTGAAGATGATGTCCGGGTTGT AGTTTGGGGTCAAGCTCTTTAAAGCGCTCGGAGCTGGGGGTGACCTTCCCTC ATATCTCCCGCTCGCCCCAGCGTTTTCTCGGCTACGTTCCGACTGAACTGC TTATAGGCGAGAGGCGTGAGTTTTCCGCGGAGTCCGTCTCTTGCCGTAACCTC TGCCCGGTCCACAGCCGTGCTACGCCGGCGAGAAAGCCAAGATGAAGCCGG TGAGGAGCGCCGCCCGCGTGGAGAGTCTCATTCTAGAGTCGACCTGCAGGC ATGCAAGCTTATTCCCTTAGTGAGGGTAAATTTATATAGCTTGGCACTGGCC GTCGTTTTAC
<i>shha</i>	GCCACGTTCCCATTTGATACAGGAGCCTGGAGTACCAGTGGACCCCTCCTG TTGTA AAGTTCGATTGGACCGACTGCTGGAGTTTTGGGGGAACAGGAATGAT GACACGTAATAATAGAGCCTGGCGGGCGCGAAGGCCAAATGCGCAAGCCCC TGGTCTCTATTACGGCGTAACAGGACGCCAGTATTCTGTGACCAACAATGG TCCATGTGCAGTCACTGGTGCGAACGAGCCCCGCTGCTCCTCCGTGTATAT CCGCTGCACGATGACAGATTTAAGCTGACCGCTATCATCAACAACCATCACCT TTTGTCCGGCTCTGACACTGCTGGCATAACGCGGCGGTGATGGTGTGGAGATC TTCCGTTGAGTTGTGCGAGGACAAAAGGAGGTGAGCGGCGGTGAGGGTGTG CTTTTCAACGGGTTCTTGCCTTTCTATGACGTA A A C A C A C G T C G C G T C G T G G AGTCTCGGTCTGTGAACATGATGAAGTTCGCTGAACACCAGGTTTCCCGCGCT GTCTGCCGCCAGCACCTTGTCTCCGGGGTTCAGGTCCTTACGGCCTTCTGT CCTCCGTCTGGAGCGAGACCAGAGCCGAACCTGGGAAACAGCCCCAGAT TTCGCAGCAACCGAATTTCTGCTTTGACAGAGCAATGAATGTGGGCTTTGGA CTCGTAATAGACCCAGTCAAATCCAGCCTCCACAGCTAGGCGAGACAGTGTG CCGATTTGCTCTTGTCTCGGTCAGAGG
<i>ptch1</i>	GGGAGACTGCGGTGAGTTACACGCCATTGGGTCGCTGGAGCTGGGGCTGTG TTCTGGGGGCGAGTTCGCCGTTTTTTCATAATCTTCTTTAGTTTTGATCTTTGTT CTGGAACCAAGATTTTACCTGTGTCTGTGTGAGTCCAGCGATGCGGCGAGC TCGGCTCTTTCTGGAAGCGCGAGGTATTGCGTGTCTGAAACCTTCTCTGTAA AGCTGCGAGCTGGAAACTGGAGTAAATGGTTCGGGGCTTCCGACTTTTTTG GGTTTTCCGTTGACCATCCTTACTTCGGGCTCGGCTGTTTCTTTTTCTTGC GG GCTCGGTTGTGATTGCACTCTGTTATATGTTCCCTGCGTATTGGTGATACGCTG TGGAGTATGAGCCGTAATCAGGGTAGGATTTTGCAGAGTAATTTCCAGAAGAT CCATTGACTCCGTGGTATTGGTACTGATAGGCATTAAGAGTTTTCCCATAGGT

	GCCCCGAGTTCGGTGAACAATAGCCATGATGAACTCCTCCGGCAGGGCTGTAA TAGCCAGAATCCGTGGCTGTGGACTCCGGTAGGGTTGGAGAT
<i>msxc</i>	CATTTTGAATCCTCCGAAAGGACACTGGCAGGACAGGGCGTTATAACAGTTA ATCCAGACGGTGCCGGCCTGCACTGCTGCAGAGATGGTCATGGCCTTGCTG ATATCTCTGGTGAAGACGGCCGCTGCCAGACCGTATTCTGTGTTGTTGGCTC TCTCAATCACTTCTTCAATTGTTTTGAACTTCATGATTTGCTGCACTGGCCCAA ATATCTCCTCCTTGGCGATGCGCATGTGGTCCTTACATTAGAGAAAAGTGTG GGCTCCACGAAGAAGCCTTTAGTAGGAGGAGCTTTGCCTCCACACTCCAGTT TGGCTCCTTCAGTGATGCCACTCTGGATGAGCTCCAGCACACGTCTCTGCTG CTCCTCGCTCACCTGAGGTCCGTGTTTCAGTGGTTGGGTCAAAGGGATTTCCC ACTTTCCTCCTCTGTGCTCTCTCAACACTTCTTCTCACAAAAGTCAATAAATG GGCTCCTCAACAAAGATACGGGAACCAGCAGTGCAGCATTGACCGTTATTGA AGAAAACCCCTGATGGGCCTGTTCTAATGCCAGCTCAAATCAGCATCTGC AAAAATGATGTTGGGACTCTTCCCGGAGCTCCAGCGTGACTCTCTTCAGAT TGCTCTTTCCTGCTGCTTCTTGGATCAGCTTGCTACCTCAGTCGATCCTGTG AACGCCACTTTGTCTATGCCATGTGCGAAGAGATCGCGGCTCCTGCGGTTG GCCCATAGCCTGGCAAAATATTGACGACTCCCGGTGAAACCCAGCCTCTTT GATCAGAGCGCCGAGGTAGAGGCAGGTGAGAGGGGTTTGCTCAGCAGGTTT CAGGACAACCGTGTCCCGCAGCTCAGCGCCGGCCCAATTTCCATGCTGTC ATCACCAGGGGGAAGTTCCAAGGAATGAT
<i>raldh2</i>	CATTTTGAATCCTCCGAAAGGACACTGGCAGGACAGGGCGTTATAACAGTTA ATCCAGACGGTGCCGGCCTGCACTGCTGCAGAGATGGTCATGGCCTTGCTG ATATCTCTGGTGAAGACGGCCGCTGCCAGACCGTATTCTGTGTTGTTGGCTC TCTCAATCACTTCTTCAATTGTTTTGAACTTCATGATTTGCTGCACTGGCCCAA ATATCTCCTCCTTGGCGATGCGCATGTGGTCCTTACATTAGAGAAAAGTGTG GGCTCCACGAAGAAGCCTTTAGTAGGAGGAGCTTTGCCTCCACACTCCAGTT TGGCTCCTTCAGTGATGCCACTCTGGATGAGCTCCAGCACACGTCTCTGCTG CTCCTCGCTCACCTGAGGTCCGTGTTTCAGTGGTTGGGTCAAAGGGATTTCCC ACTTTCCTCCTCTGTGCTCTCTCAACACTTCTTCTCACAAAAGTCAATAAATG GGCTCCTCAACAAAGATACGGGAACCAGCAGTGCAGCATTGACCGTTATTGA AGAAAACCCCTGATGGGCCTGTTCTAATGCCAGCTCAAATCAGCATCTGC AAAAATGATGTTGGGACTCTTCCCGGAGCTCCAGCGTGACTCTCTTCAGAT TGCTCTTTCCTGCTGCTTCTTGGATCAGCTTGCTACCTCAGTCGATCCTGTG AACGCCACTTTGTCTATGCCATGTGCGAAGAGATCGCGGCTCCTGCGGTTG GCCCATAGCCTGGCAAAATATTGACGACTCCCGGTGAAACCCAGCCTCTTT GATCAGAGCGCCGAGGTAGAGGCAGGTGAGAGGGGTTTGCTCAGCAGGTTT CAGGACAACCGTGTCCCGCAGCTCAGCGCCGGCCCAATTTCCATGCTGTC ATCACCAGGGGGAAGTTCCAAGGAATGAT
<i>axin2</i>	ATCCGCACACCAGCTTTAGACCTCCTAGACCATTGGGATTCACATGACTGGG GTTCTCGCACCCAGTTCTGACATACTCGAGGTATATGTCCGAGGTCAAAAACA TCTGATAGGCATTCTCCTCCATAGCCGCTGGATCTCCATTTGAGCCTGATCA AACATTGCAGAGTCAATCTGCTGACGCTTAATATTATCCCTAATAAAGGTCTTA GTGGCAGGTTTAAAGCTGCTTGGCCACAATGCTGTTGTTCTCAATATACCGCTT GTAATGGCTTTGGCAACTCTGTGCGTTTTGGTATCCTTGAGGTCCATTTGTC TGAAACCATTGCAGGCAAACCAAAAATCTAAAGTGTCCACACATTTCTCGCGT TCAAGGTATGCCCGGAAAAGTTGAGCACCATCCTGGTCCCGGAGAAGAAAAT GCAAAGATTTGGTCCACCGGGCAAGAGGGGAGTCCGGGGATGCGCTGCCCT CAGGTTCCCAAGTCCATCCTCATCCCTCCTGGCCGTGGAACAACGAAGATC AGCCATAATGGTCTTGACAGGATCCTTCGGTCTCATCATGGCCAGTTTGCTG GGATGGTGGCATGTCGTCTCACCTCTTCC
<i>pea3</i>	CTGCAGGTGCTGCTGCCTCTGTCCGTCTTCCCTTCCCTCTCAGTCTGCGTGG AGCTCATTAAACACAGCCTAAATGACCACAAACGGTTAAGGCATGGATTATA AGATGGATGGATATCTGGACCAGCAAGTGCCTTATACTTTAGCTAATAGGTG CAAGGAAATGGGCCCTAAATAGACTGTTGATGGCGACAAAAGGAAATACA TGGACGCAGAATTACCCCTCAGGAATCTGAAGACCTTTTCAGGATTTAAGC CACTTCAGGAGACCTGGCTCACCGAAGCTCAAGTTCCTGACAGCGATGAGC AGTTTGTTCTGACTTTCACTCAGAGAACTCAGTGGCATTCCACAGCCCGCCT GTGAAGATTAAGAAAGAGCCGCAGAGTCCCGGATCAGACCCAGCCAGTCCT GCAGCCACAAGCAAAGCTTCAGCTACCCCAATGGAGAGCAGTGCTTTACGC CAGTGCCTATGAGCAGAAGAGAGCAGCCGTGGCAGGAGCAGGAGGATCTAA

	<p>GAGCTCATGTCCAGGGACGCCATGTCCCCTATGCAGCATTATTCCCCAAA CCAACAGTGGGAACTCGGCAGGAATCAGGGTATATGAATCCACCCTCAGCCA GCCAATCCCACGCCTGCCACAGCCACAGTTACCCCATGAACCCAGTTCAG GTTCCCTTCCGGCTCGGCAGAGATGTGCCACCATTTCGCTTCCAAGGCCAG GCCCTGCAGCGCATGCATCCTGCCATGCCAGCGGAGGCGGTTACCATCGG CAACACTCTGACCCCTGCTTGCCTTATCCTCCTCAGCAGACCTTTAAGCAAGA GTACATGGACCCTCTGTATGACCGAGCGGCCACATTAACGGACCACAGCCT CAGAGGTTTCTCCTGCCATATGATGGTCAAACAGGAGGCCACCGACTACA CTTACGAACCTGATGTGCCTGGCTGCCATCCATGTACCATCACAAACGAAGG CTACTCCAACCCACAGCACAACAGTGAAGGCTACATGTTTGAAAATGATTCCC GTGTTGTGCCAGAGAAATTTGAAGGTGAGGTGAAACAAGAAGGGGGCAGTGT GTTTCGTGAAGGTGCCCCCTATCAGCGTCGTGGCTCACTTCAACTATGGCAG TTCTTGTTGCCCTTCTTGATGACCCAGCAATGCCACTTCATCGCATGGAC GGCCGTGGCATGGAATTCAAACTCATTGAGCCAGAGGAGGTGGCAAGACT CTGGGGATGCAGAAGAACCGTCCAGCCATGAACTATGACAAACTGAGTCGC TCTTTCGTTACTATTATGAGAAGGGAATTATGCAAAGGTGGCTGTTGAGCG TTATGTTTACAAATTTGTGTGAGCCAGAAGCTTTGATAACCTTGGCTTTTCC CGACAATCAGCGGCCAAGTCTGAAGGCGGAATTTGAGCGCTACGTCAACGA GGAGGACACTGTGCCACTGTCCACCTCGATGAGGGAGTTTCTTACCCTCCC GAACCAGCTGCCACCAACATGGGCCCTCAGCCCTACTCCAAAGGCTACATGT ACTAATGCCACCGACATTCTCCTTTGTTTCCCATCCCAGTTTACCACCCGCTG CACCTATTGCACATGCCACCCCATCCTTGTATATAAGGCTATGTTTTATGT TTTTGTTTTGATTAATTAATCTCATTAGGGACTCTGCATTCTCTCACTTCTGA GGCCTATCTAATCTAAACACAATACTGTGGTTCAAGAGATTGCTTAATAAAC CAATATTACTACTATAAACGAGGGGGCCCGTA</p>
<i>tcf7</i>	<p>ACCAGTCCGTCTGTTGGTTCAGGCCGAAGCGAGCGCGGCATTTCTTTGGAGA GCCAGGCCCTGTACTGGAGTCTCTGCTGCTTGTCCCCTTCTCCGCTTCTTTT TGCCCAAAGCACTCACGTAGTTGTCACGGGCGGACCAGCTGGGGTAGAGCT GCACGTGCAGCTGCCGCTCCTTACGGGCCAGCTCATAGTACTTGGCCTGTTT CTCACGGGTGAGAGCGTGCCACCGGCCGCCAGGATCTGGTTGATGGCGGC GCTCTCCTTCAAGTGTGCACTCTGCGATCACTTTAGCGCGCATCTCCTTATGT ACAGCATGAACGCATTGAGAGGCTTCTTGTATCACCAGGCTTCTTGGGCTCCTT CTCCCGCTTGGCTCCGCATGAGACTTGTATAAATGCTCCTGTGCAACTGAT CGTGCTCCTGCTTTCCTGAAGGGGGCACTATAGCGGGGTGAGGGATTCTGT GGGGTGCATACCGGACTGCAGCATCAGAGAGTGAGAGAACCAGTTCATGGA GGGCGTGATCTGACCCTGAGGCAGCGAGTAGAAACCCGAAATCTCCTGCGT CTGATGTCTGTGAACACCTGGTTTCTGTCTCCTCCGTCTGTGGGCATGTGTGT GGACTGGGGTTGAAGTGTTTCATACGGCAGCAGCGGCGTCAGCGGATGCATC CCCTGTTGGACCACCGACACCTTGTGGAAAGGTGGAGAGACGGGTCCGTTG GGCAGATACGGCTCCGGCAGCATCAGGAACGGGTATCCGGAGTACGGCGCT TTATACATCCCTCCATCGTGATGTTTGGGCACGTCGTCCAGATGTTCTCGTTT ATCGCTGTAGATCCTCTGCTGCTCCTGCTGTCTCCTTCTGATCACGGCTGGG CTCTGGCTGATCTCGGTCTCGCTGACCAGTGATGA</p>
<i>myod</i>	<p>CAAAGAAACCCTCCGAGGTCCTGCGAATTTTAGACTGTAGTTTTGAAACGTAC GTTATTTCCGGATCTGAAGGACTTTGTCTTACTATTCCATAATTTTGGTTTTTATT TTTTTTACAAATTTACTACTTTGGAAACATTCAAGTACATTTCTTGCTTTTTAAA CTTTAACACAAAAAAGATGGAGTTGTGGATATCCCCTTCCCCATCCCATCAG CTGATGACTTCTACGACGACCCTTGTCAACACCAACGACATGCACTTCTTT GAAGACTTGGACCCAGGCTTGTTCACGTGAGCCTGCTCAAACCCGACGAGC ATCACCATCGAGGACGAGCACGTGAGGGCGCCAGTGGGCATCATCAGG CCGGCAGGTGCCTACTGTGGGCATGCAAAGCTTGCAAGAGAAAACTACCAA TGCTGACCGTCGCAAAGCCGCCACCATGAGGGAGAGGAGGCGACTGAGCAA GGTCAACGACGCTTTTCGAGACCCTCAAGAGATGCACGTCCACCAACCCGAAC CAGAGGCTGCCAAAGTGGAGATTCTGAGAAACGCCATTAGTTATATCGAGT CTCTGCAGGCTCTTCTCAGAAGTCAAGAGGATAACTACTATCCCCTTCTGGAA CATTACAGTGGAGACTCTGATGCTTCCAGTCCGAGATCCAACCTGCTCTGATG GCATGATGGATTTTATGGGCCAACGTGTCAGACGAGAAGACGGAACAGCTA TGACAGCTCTTACTTCAATGACACACCAAATGCTGACGCACGGAATAATAAAA ACTCAGTGGTGTGAGTTTGGATTGTCTGTCCAGCATCGTGGAGCGAATTTT CACAGAGACTCCTGCATGTCCCCTGCTGTGAGTACCGGAGGGGCACGAAGA</p>

	<p>GAGCCCGTGTTCCTCCGCATGAGGGATCTGTCCTGAGTGACACCGGAACCAC CGCACCGTCCCCGACCAGCTGCCCTCAACAGCAGGCTCAGGAAACCATTTAT CAAGTGCTTTAAAATTCTGCAACATTTCAAACAAATTGAAAAAGACAATCTGA ATGAAGAACTTTTCAGCAGAAAAAGGCGAATCCGACCTTTAACGACAAAAGAA AGACTTTTGTATCCACTGCTGGAAACTAGGAAAGAATGCTTTCTTTCTTTCTTT TTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCT TTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTT TCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTT CTTTCTTTCTTTCTTTCTTTATGCGGTGGAAAATGTAATTCGAATATGAGAAAA GACTCAGCAGATCAGCAGAAGTGAGTTTTTAACTAAGCTTATTTATATTGTTA TATCCACGTGAAAATGTGACCATATTTTTTCCCTTTGTGAATATATTTCTGTC ACCATCACCTTTTATTTTCCCTAATTTTACGGAAAAATCGTAATCCAGATAC GAATAGTAGGACCATTTTGTATATGTGTAATAAGATCTGTTTTGTTAAAGCG ACGAAAACGAACAAACATATTATTGATTTAATGATGCCTGTTTGAACACTAG TTTGTGTGTCTTGTGTTAACTTTATATTTATACTTCTTAAACGAGTGAATGAC GGATAAATAAAAAACAACATTTTATACTGGAAAA</p>
<i>wnt10a</i>	<p>CTTTGACCCCATCCTCAATGCCAACACGGTGTGTTTGACCCTGCCAGGCCTG ACAAAGAAACAGCTGGACGTTTGTATGAGAAATCCAGATGTGACGGCCTCAG CCATACAGGGCATTTCAGATTGCCATTCATGAGTGCCAGCATCAGTTCCGAGG GCACCGCTGGAAGTCTCAAGTTTGAGACCAGGAATAAAATCCCTTACGAG AGTGTGGTCTTCAGCAGGGGTTTCAGAGAAAGCGCATTTGCTTATGCCATTG CTGCAGCTGGTGTGGTGCATGCCGTGTCTAATGCCTGTGCCATGGGCAAACT GAAGGCCTGCGGCTGTGACGAGAAGCGCAGAGGAGACGAGGAGGCGTTCA GAATCAAGCTCAACCGTCTGCAGCTGGAGGCCATCAATCGAGGCAAAGGCAT GGTGCACGGTGTGATGGAGCACTTCCCTGCCGAGGCACTCGGCCCCAGGA CTCCTGGGAGTGGGGCGGCTGCAGTCCAACGTGGAGTATGGGGAGCGCTT CTCCAAGGACTTCCCTGGACTCCCGCAGACGTACAGAGACATTCACTCCAGG ATGAGACTTCATAACAACAGAGTTGGCAGGCAGGTTGTGGTGGACCACATGA GGAGGAAATGCAAATGCCATGGTACATCGGGCAGCTGTCAGCTGAAGACCTG TTGGCAGGTGACTCCAGAGTTCAGAACGGTGGGCTCGCTGCTGAAGGAGCG CTTCAACGTGGCCACGCTAATCAAAGCCACAACAGAAACACAGGTCAGGTG GAGAATGCCACCACACACACCGGCGGAGAGCCAACATCAATGACCTGGTCT ACTTCGAGAAGTCCCCTGACTTCTGTGAGAGGGACCTTGGGTCCGACTCTGC CGGGACGCAAGGCCGGATCTGTAACA</p>
<i>fgf10a</i>	<p>GTTCTGTGTTCCGGCTCTGCCTGTGGCCTGCCATGACACCCACAGGGCCATC CGTGCCCCGAGGGGCACCAACTCCTCATCGTCTGCCGTGGTGGGGCGGCAT GTGCGCAGCTACAACCACCTCACGGGGGACGTGCGCAGGAGGAAACTCTTC TCCTACCAGAAGTTCTTTCTCAGGATCGATAAGAACGGAAAAGTCAATGGCAC CAAAGCAAGGACGATCCGTACAGTACACTCGAAATCAAGTCTGTGGATGTG GGCATCGTTGCCATCAAGGGGATTCAAAGCAATTACTACCTTGAATTAACAA GAAAGGGGTGGTCTACGGGGCGAGGGATTTTCGGCATTGACTGCAAGCTGAT AGAGAGGATAGAGGAGAACAGGTACAACACCTATGCCTCGGCAGAATGGATG AACAGAAGAAGCACATGTTCTAGGTCTGAGCGCCAACGGGAGGCCGATG AGGGCCAAAAAGACCCGGAGAAAAAACACAGCCACACACTTTCTCCC</p>